



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,521	01/15/2004	Woong-Kwon Kim	3430-0200P	4585
2292	7590	04/27/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			NGUYEN, HOAN C	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

3/L

Office Action Summary	Application No. 10/757,521	Applicant(s) KIM, WOONG-KWON	
	Examiner HOAN C. NGUYEN	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2871

DETAILED ACTION

Applicants adds new claims 5-8.

Response to Amendment

Applicant's arguments with respect to claim 1 based on the Response filed on 1/15/2006 have been considered but are moot in view of the new ground(s) of rejection. Therefore, this is Final action.

Claim Objections

Claims 1, 3, 6-7 and 8 objected to because of the following informalities:

Claims 1 and 3: "through a contact holed_u" should read "through a contact hole_u."

Claims 6 and 8 should depend on claims 3 (not claim 1).

Claims 7-8: "the pixel electrode if formed from indium tin oxide" should read "the pixel electrode is formed from indium tin oxide".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2871

1. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (US6466281B1) and view of Nagata et al. (US6060199A).

In regard to claims 1 and 3, Huang et al. teach (Fig. 2) a LCD device comprising:

- a thin film transistor (TFT) 32 formed on a substrate 30, the TFT having a gate 36, a source 34 and a drain 38;
- a color filter layer 58 on the TFT to be in direct contact with drain; wherein the contact is ONLY at portion where the color filter is overlapping ONLY edge portions of the drain;
- a planarization layer formed over TFT and the color filter,
- a pixel electrode 48 formed above the color filter layer to be in electrical contact with the drain through a contact hole formed in the planarization layer where the color layer is not formed;

wherein

Claim 2:

- the color filter layer and the drain in direct contact such that are no intermediaries therebetween.

Claim 4:

- no passivation layer formed between TFT and the color filter layer.

Claims 5-6:

- the planarization layer is formed from benzocyclobutene.

Claims 7-8:

- the pixel electrode is formed from indium tin oxide (ITO).

Art Unit: 2871

However, Huang et al. fail to disclose a color filter layer 58 on the TFT to be in direct contact with source and drain; wherein the contact is ONLY at portion where the color filter is overlapping ONLY edge portions of the source and drain; so as to prevent light leakage and improve an aperture ratio;

Nagata et al. teaches a color filter layer 58 on the TFT to be in direct contact with source 16a/17a/18a and drain 16b/17b/18b; wherein the contact is ONLY at portion where the color filter is overlapping ONLY edge portions of the source and drain; so as to prevent light leakage (col. 4 lines 39-40) and improve an aperture ratio (col. 4 lines 33-35).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a liquid crystal display device as Huang et al. disclosed a color filter layer 58 on the TFT to be in direct contact with source and drain; wherein the contact is ONLY at portion where the color filter is overlapping ONLY edge portions of the source and drain; so as to prevent light leakage (col. 4 lines 39-40) and improve an aperture ratio (col. 4 lines 33-35) as taught by Nagata et al.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2871

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (571) 272-2296. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim H. Robert can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HOAN C. NGUYEN
Examiner
Art Unit 2871

chn


ANDREW SCHECHTER
PRIMARY EXAMINER